IN THE CLAIMS:

115. (Currently amended) In a method of transmitting message from a sender to a destination address through a server displaced from the destination address and of authenticating the message, the steps at the server of:

receiving the message from the sender,

transmitting the message to the destination address,

receiving at the server an indication from the destination address that the message has been received at the destination address from the server,

maintaining the message ~~in its original form~~ and additionally providing a ~~digital signature~~ verification of the message ~~in the original form of the message~~, and

transmitting to the sender the message ~~in its original form~~, and the verification ~~digital signature~~ of the message ~~in the original form of the message~~, for storage by the sender.

116. (Currently amended) In a method as set forth in claim 115, the step at the server of:

discarding the message and the verification ~~digital signature~~ of the message after the transmission of the message and the verification ~~digital signature~~ of the message to the sender and before any authentication of the message.

117. (Currently amended) In a method as set forth in claim 116, the steps at the server of:

receiving from the sender a copy of the message and the <u>verification</u> ~~digital signature~~ of the message before any authentication of the message, but after the transmission of the message to the <u>sender</u> ~~destination address~~,

generating digital fingerprints of the message, and the <u>verification</u> ~~digital signature~~ of the message, received from the sender,

comparing the digital fingerprints, and

authenticating the message on the basis of the results of the comparison.

118. (Currently amended) In a method as set forth in claim 116, the steps at the server of:

providing at the server an attachment including the identity of the sender and the identity and address of the server and the identity and the destination address of a recipient,

maintaining the attachment ~~in the original form~~ and additionally providing a <u>verification</u> ~~digital signature~~ of the attachment ~~in the original form of the attachment~~, and

transmitting to the sender the attachment ~~in the original form of the attachment~~, and the <u>verification</u> ~~digital signature~~ of the attachment ~~in the original form of the attachment~~, for storage by the sender,

transmitting to the sender the attachment and the <u>verification</u> ~~digital signature~~ of the attachment, at the same time as the transmission of the message, and the <u>verification</u> ~~digital signature~~ of the message, to the sender.

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the destination address,

maintaining the attachment ~~in its original form~~ and additionally providing a verification ~~digital signature~~ of the attachment ~~in the original form of the attachment~~, and

transmitting to the sender the attachment ~~in the original form of the attachment~~, and the verification ~~digital signature~~ of the attachment in the original form of the attachment, for storage by the sender.

120. (Currently amended) In a method as set forth in claim 11[[5]][[9]], the steps at the server of:

receiving from the sender copies of the message and the attachment and the verification ~~digital~~signatures of the message and the attachment,

generating digital fingerprints of the message and the verification ~~digital signature~~ of the message and digital fingerprints of the attachment and the verification ~~digital signature~~ of the attachment, and

comparing the digital fingerprints of the message and of the verification ~~digital signature~~ of the message, and comparing the digital fingerprints of the attachment and the verification ~~digital signature~~ of the attachment, to authenticate the message and the attachment.

121.   (Currently amended) In a method as set forth in claim 119, the steps at the server of:

receiving the message, and the verification ~~digital signature~~ of the message, at the server from the sender, and

authenticating the message at the server on the basis of the message, and the verification ~~digital signature~~ of the message, received by the server from the sender.

145.   (Previously presented) A method of transmitting message from a sender to a destination address for a recipient through a server displaced from the destination address and of authenticating the message, including the steps at the server of,

receiving the message from the sender,

transmitting the message to the destination address through a path including servers between the server and the destination address, and

transmitting to the sender the message and the path of transmission of the message between the server and the destination address.

146.   (Previously presented) A method as set forth in claim 145 wherein

the server receives from the sender the message and the path of

transmission of the message between the server and the destination address and wherein

the server authenticates the message on the basis of the message and the

path of transmission of the message between the server and the destination address.

147.   (Previously presented) A method as set forth in claim 145 wherein

the server does not retain the message and the path of transmission of the

message between the server and the destination address after it transmits to the sender the

message, and the path of transmission of the message, before any authentication of the

message.

148.   (Previously presented) A method as set forth in claim 145 wherein

the destination address is one of a plurality of destination addresses

receiving the message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in

the transmission of the message to the destination addresses in the plurality.

149.   (Previously presented) A method as set forth in claim 145 wherein

the path of transmission of the message between the server and the

destination address includes the identity and address of the server and the identity of the

recipient at the destination address.

150.   (Currently amended) A method as set forth in claim 146 wherein

the server does not retain the message and the path of the transmission of

the message between the server and the destination address after it transmits to the sender

the message, and the path of transmission of the message between the server and the

destination address, before any authentication of the message and wherein

the destination address is one of a plurality of destination addresses

receiving the message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in

the transmission of the messages to the destination addresses, ~~in the plurality~~ and wherein

the message has an attachment and wherein

the attachment identifies the path of transmission of the message[[s]]

between the server and the destination addresses.

159.   (Currently amended) A method of providing a delivery at a server of an

electronic message from the server to a destination address and of authenticating the

electronic message, including the steps at the server of:

receiving at the server the electronic message from a sender for

transmission by the server to the destination address,

transmitting the electronic message <u>and information relating to the</u>

<u>electronic message</u> from the server to the destination address via a protocol selected from

a group consisting of an SMTP protocol and an ESMTP protocol, and

receiving at the server the transmission of the <u>information relating to the</u>

electronic message between the server and the destination address via the selected one of

the SMTP and ESMTP protocols.

160. (Previously presented) A method as set forth in claim 159, including the step at the server of:

including, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the identity of the sender, the identity and address of the server and the destination address.

161. (Previously presented) A method as set forth in claim 159, including the steps at the server of:

providing a transmission of the electronic message from the server to the sender,

including, in the transmission of the message from the server to the sender, additionally a digital signature of the electronic message.

162. (Previously presented) A method as set forth in claim 159, including the step at the server of:

recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the electronic message from the server to the destination address and the time for the reception of the electronic message at the destination address.

163. (Previously presented) A method as set forth in claim 160, including the steps at the server of:

including, in the transmission of the electronic message between the server and the sender via the selected one of the SMTP and ESMTP protocols, a digital signature of the electronic message, and

recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the electronic message from the server to the destination address and the time for the reception of the electronic message at the destination address.

164.   (Currently amended) A method as set forth in claim 159, including the step at the server of:

including, in the transmission of the information relating to the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the status of the delivery of the electronic message at the destination address from the server.

165.   (Previously presented) A method as set forth in claim 159, including the step at the server of:

receiving at the server a delivery status notification relating to the status of the delivery of the electronic message at the destination address and the delivery of the electronic message from the destination address to a recipient.

166. (Currently amended) In a method of verifying at a first server a delivery of an electronic message to a destination server for a recipient, the steps at the first server of:

transmitting the electronic message, and the information relating to the electronic message, from the first server to the destination server via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

receiving, at the first server from the destination server, the transmission between the first server and the destination server of the information relating to the electronic message via the selected one of the SMTP and ESMTP protocols, and

transmitting from the first server to the sender the electronic message and the transmission between the first server and the destination server of information relating to the electronic message via the selected one of the SMTP and ESMTP protocols.

167. (Previously presented) In a method as set forth in claim 166, the step at the first server of:

transmitting from the first server to the sender the electronic message at the time of the completion of the transmission of the electronic message between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

168. (Previously presented) In a method as set forth in claim 166, the step at the first server of:

discarding the electronic message at the first server after the transmission of

the electronic message via the selected one of the SMTP and ESMTP protocols by the

first server to the sender.

169.   (Currently amended) In a method as set forth in claim 166, the steps at the

first server of:

maintaining the electronic message at the first server and additionally

providing at the first server a verification ~~digital signature~~ of the electronic message, and

transmitting the verification ~~digital signature~~ of the electronic message

from the first server to the sender at the time of the transmission of the electronic

message from the first server to the sender.

170.   (Previously presented) In a method as set forth in claim 169, the steps at

the first server of:

transmitting from the first server to the sender the electronic message after

the transmission of the electronic message between the first server and the destination

server via the selected one of the SMTP and ESMTP protocols, and

disposing of the electronic message at the first server after the transmission

of the electronic message via the selected one of the SMTP and ESMTP protocols by the

first server to the sender but before the authentication of the message.

171.	(Previously presented) In a method as set forth in claim 170, the step at the first server of:

transmitting between the first server and the destination server the identity of the sender, the identity and address of the first server and the identity and address of the destination server and the time of the receipt of the electronic message by the first server and the time of the transmission to the first server from the destination server of the identity of the sender, the identity and address of the first server and the identity and address of the destination server

172.	(Previously presented) In a method as set forth in claim 166, the step at the first server of:

receiving at the first server from the destination server a delivery status notification indicating the status of the delivery of the electronic message from the first server to the destination server and the time of the transmission of the delivery status notification by the destination server to the first server.

173.	(Currently amended) In a method of verifying at a first server a message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps at the first server of:

receiving at the first server from the destination server an attachment including transmissions between the first server and the destination server information relating to the message from the sender, the transmissions between the first server and the

destination server being provided via a protocol selected from the group consisting of an

SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the <u>information relating to</u>

<u>the</u> electronic message and the attachment including the transmissions between the first

server and the destination server via the selected one of the SMTP protocol and the

ESMTP protocol,

transmitting from the sender to the first server the electronic message and

the attachment including the transmissions <u>of information relating to the message</u> via the

selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the electronic message, and the

attachment including the transmission <u>of information relating to the electronic message</u>

via the selected one of the SMTP and ESMTP protocols, received by the first server from

the sender.

174.   (Previously presented) In a method as set forth in claim 173, wherein:

the attachment includes transmissions between servers intermediate the first

server and the destination server.

175.   (Currently amended) In a method as set forth in claim 173, the step at the

first server of:

disposing of the message from the first server when the first server

transmits to the sender the electronic message and the attachment, including the

transmissions between the first server and the destination server <u>of information relating to</u> <u>the electronic message</u> via the selected one of the SMTP protocol and the ESMTP protocol, before the authentication of the message and the attachment.

176.   (Currently amended) In a method as set forth in claim 175, the steps at the first server of:

receiving at the first server from the destination server the transmission of the identity of the sender, the identity and address of the first server and the identity and address of the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, and

transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time of the transmission from the first server to the sender of the message and the transmission between the first server and the destination server <u>of information</u> <u>relating to the electronic message</u> via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, the disposition of the message and the attachment <u>and the information relating to the electronic message</u> occurring before the authentication of the message and the attachment.

177.   (Currently amended) In a method as set forth in claim 173, the steps at the first server of

providing at the first server <u>verification</u> ~~digital signatures~~ of the message

and of the attachment, including the transmission between the first server and the

destination server of information relating to the message from the sender, and

transmitting from the first server to the sender the message and the

attachment and the <u>verification</u> ~~digital signatures~~ of the message and of the attachment.

178.　(Previously presented)　In a method as set forth in claim 173, the steps at

the first server of:

transmitting from the first server to the sender the identity of the sender, the

identity and address of the first server and the identity and address of the destination

server at the time that the message and the transmissions between the first server and the

destination server are transmitted from the first server to the sender,

transmitting from the sender to the first server the information transmitted

from the first server to the sender, and

authenticating the message at the first server on the basis of the information

previously transmitted from the first server to the sender and thereafter transmitted from

the sender to the first server.

179.　(Currently amended)　A method of verifying delivery at a first server of an

electronic message to a destination server for a recipient, including the steps at the first

server of:

receiving at the first server the electronic message from a message sender

for transmission of the electronic message to the destination server,

transmitting the electronic message and information relating to the

electronic message, from the first server to the destination server via a protocol selected

from a group consisting of an SMTP protocol and an ESMTP protocol,

receiving at the first server the transmissions between the first server and

the destination server of information relating to the electronic message via the selected

one of the SMTP and ESMTP protocols, and

transmitting from the first server to the sender the electronic message and at

least a particular portion of the transmission between the first server and the destination

server of the information relating to the electronic message via the selected one of the

SMTP and ESMTP protocols.

180.   (Currently amended) A method as set forth in claim 179 wherein

the electronic message and the at least particular portion of the

transmissions relating to the electronic message via the selected one of the SMTP and

ESMTP protocols to the sender are provided by the sender to the first server, and wherein

the electronic message is authenticated by the first server on the basis of the

electronic message and the at least particular portion of the transmissions from the sender

to the first server.

181.   (Currently amended) A method as set forth in claim 179 wherein

the electronic message is maintained at the first server and additionally a

verification ~~digital signature~~ is provided of the electronic message at the first server and

wherein

the verification ~~digital signature~~ is transmitted from the first server to the

sender with the message and the at least particular portion of the transmission between

the first server and the destination server of the information relating to the electronic

message via the selected one of the SMTP and ESMTP protocols and wherein

the verification ~~digital signature~~ is thereafter provided by the sender to the

first server with the electronic message and the at least particular portion of the

transmission of the information relating to the electronic message via the selected one of

the SMTP and ESMTP protocols.

182.   (Currently amended) A method as set forth in claim 180 wherein

a digital signature of the electronic message and a digital signature of the

electronic transmission provided of the information relating to the electronic message via

the selected one of the SMTP and ESMTP protocols are produced at the first server and

are transmitted to the sender with the electronic message and the electronic transmissions

provided via the selected one of the SMTP and ESMTP protocols and wherein

the digital signatures and the electronic message and the at least particular

portion of the transmission via the selected one of the SMTP and ESMTP protocols to the

sender are thereafter provided by the sender to the first server and wherein

digital fingerprints are produced at the first server from the electronic

message, and the digital signature of the electronic message, provided by the sender to

the first server and wherein

the electronic message is authenticated at the first server by establishing an

identity between the digital fingerprints produced at the first server.

183. (Currently amended) A method of verifying at a first server the delivery of

an electronic message from the first server to a destination server including the steps at

the first server of:

receiving at the first server the electronic message from a message sender

for transmission to the destination server,

transmitting the electronic message from the first server to the destination

server,

receiving at the first server an electronic transmission between the first

server and the destination server of the information relating to the electronic message via

a protocol selected from the group consisting of the SMTP protocol and the ESMTP

protocol,

transmitting from the first server to the sender the electronic message and

the electronic transmission between the first server and the destination server of the

information relating to the electronic message via the selected one of the SMTP and

ESMTP protocols,

receiving at the first server from the sender the electronic message and the

electronic transmission between the first server and the destination server of the

information relating to the electronic message via the selected one of the SMTP and

ESMTP protocols, and

authenticating the electronic message at the first server on the basis of the

electronic message received by the first server from the sender and the electronic

transmission received by the first server from the sender.

187.   (Previously presented) A method as set forth in claim 163, including the

steps of:

transmitting from the sender to the server the electronic information

transmitted from the server to the sender, and

authenticating the electronic message on the basis of the information

transmitted from the sender to the server.

188.   (Currently amended) A method as set forth in claim 163, including the

steps at the server of:

maintaining the electronic message and additionally providing a digital

signature of the electronic message, and maintaining the electronic attachment and

additionally providing a digital signature of the electronic attachment including the

electronic transmissions between the server and the destination server of the information

relating to the electronic message via the selected one of the SMTP and ESMTP

protocols, and

transmitting the digital signature of the electronic message, and the digital

signature of the electronic attachment, from the server to the sender[[;]] at the same time

that the electronic message and the electronic attachment are transmitted from the server

to the sender.

189. (Currently amended) A method as set forth in claim 173, including the

steps at the first server of:

maintaining the electronic message and additionally providing [[a]] digital

signature of the electronic message and maintaining the electronic attachment and

additionally providing [[a]] the digital signature of the electronic attachment, and

transmitting from the first server to the sender the electronic message and

the electronic attachment and the digital signatures of the electronic message and the

electronic attachment.

190. (Currently amended) A method as set forth in claim 173, including the

steps at the first server of:

maintaining the electronic message and additionally - providing a digital

signature of the electronic message, and maintaining the electronic attachment including

the transmission between the first server and the destination server of the information

relating to the electronic message via the selected one of the SMTP and ESMTP

protocols and additionally providing a digital signature of the electronic attachment, and

transmitting the digital signatures of the electronic message and of the

electronic attachment from the first server to the sender at the same time as the

transmission from the first server to the sender of the electronic message and the

electronic attachment including the transmission of the information relating to the

electronic message via the selected one of the SMTP and ESMTP protocols.

191.   (Currently amended) A method as set forth in claim 189, including the

steps at the first server of:

transmitting from the sender to the first server the electronic message and

the digital signature of the electronic message and the electronic attachment and the

digital signature of the electronic attachment including the transmission between the first

server and the destination server of the information relating to the electronic message via

the selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the digital signatures, and the

electronic message and the electronic attachment, transmitted from the sender to the first

server via the selected one of the SMTP and ESMTP protocols.

226.   (Currently amended) In a method of authenticating a message provided by

a sender and transmitted to a destination server by a second server displaced from the

sender and the destination server, the steps at the second server of:

providing an electronic attachment transmitted between the second server and the destination server of the information relating to the electronic message via a selected one of SMTP and ESMTP protocols, and

transmitting the electronic attachment from the second server to the sender.

227. (Currently amended) In a method as set forth in claim 226, the steps at the second server of:

maintaining the electronic attachment, in its original state, and additionally providing a verification digital signature of the electronic attachment, at the second server, and

transmitting the verification digital signatures of the electronic attachment from the second server to the sender at the time of transmitting the electronic attachment from the second server to the sender.

228. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and [[a]] the digital signature of the electronic attachment, at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

229.   (Currently amended) In a method as set forth in claim 227, the steps at the

second server of:

receiving the electronic attachment, and the <u>verification</u> ~~digital signature~~ of

the electronic attachment, at the second server from the sender,

providing at the second server digital fingerprints of the electronic

attachment, and the <u>verification</u> ~~digital signature~~ of the electronic attachment, received at

the second server from the sender, and

comparing the digital fingerprints to authenticate the electronic attachment.

230.   (Previously presented) In a method of authenticating a message provided

by a sender and transmitted to a destination server by a second server displaced from the

sender and the destination server, the steps at the second server of:

providing an electronic attachment including the identity and address of

the sender and the identity and address of the second server and the identity and address

of the destination server, and

transmitting the electronic attachment from the second server to the sender

after the transmission of the message from the second server to the destination server bit

before any authentication of the message by the second server.

231.   (Previously presented) In a method as set forth in claim 230 wherein

the electronic attachment transmitted from the second server to the sender

includes the address and identity of intermediate stations receiving the electronic

attachment in the transmission of the electronic attachment between the second server and the destination server.

232.   (Currently amended) In a method as set forth in claim 230, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally providing a <u>verification</u> ~~digital signature~~ of the electronic attachment, at the second server and

transmitting the <u>verification</u> ~~digital signature~~ of the attachment from the second server to the sender, at the time of transmitting the attachment from the second server to the sender.

233.   (Currently amended) In a method as set forth in claim 231, the steps at the second server of:

maintaining the electronic attachment ~~in its original state~~, and additionally providing a digital signature of the attachment, at the second <u>server</u> and

transmitting the digital signature of the electronic attachment from the second server to the sender[[,]]at the time of transmitting the electronic attachment from the second server to the sender.

234.   (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving the electronic attachment, and the <u>verification</u> ~~digital signature~~ of the electronic attachment[[,]]at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the <u>verification</u> ~~digital signature~~ of the electronic attachment,_received by the second server from the sender.

235.   (Previously presented) In a method as set forth in claim 233, the step at the second server of:

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

236.   (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving at the second server the attachment, and the <u>verification</u> ~~digital signature~~ of the attachment from the sender,

providing at the second server digital fingerprints of the attachment, and the <u>verification</u> ~~digital signature~~ of the attachment, received at the second server from the sender, and

comparing the digital fingerprints at the second server to authenticate the attachment.

237. (Previously presented) In a method as set forth in claim 233, the steps at the second server of:

receiving the attachment, and the digital signature of the attachment, at the second server from the sender,

providing at the second server digital fingerprints of the attachment, and of the digital signature of the attachment, received at the second server from the sender, and

comparing the digital fingerprints to authenticate the attachment.

238. (Previously presented) In a method of authenticating at a server an electronic message and the delivery of the electronic message to a destination address, the steps at the server of:

transmitting the electronic message between the server and the destination address,

receiving at the server the path of transmission of the message between the server and the destination address, the path including servers between the server and the destination address, and

transmitting to the sender the electronic message and the path of transmission of the electronic message between the server and the destination address.

239. (Previously presented) In a method as set forth in claim 238 wherein

the server does not retain the message or the path of transmission of the message between the server and the destination address after the server transmits to the

sender the message and the path of transmission of the message between the server and the destination address.

240.   (Previously presented) In a method as set forth in claim 238 wherein

the server receives from the sender the message and the path of

transmission of the message between the server and the destination address and wherein

the server authenticates the message on the basis of the receipt by the server

from the sender of the message and the path of transmission of the message between the

server and the destination address.

241.   (Currently amended) In a method as set forth in claim 240 wherein

the server maintains the message in its original form and additionally

provides a verification digital signature of the message and transmits the verification

digital signature with the message to the sender and wherein

the server receives from the sender the message and the verification digital

signature of the message and wherein

the server provides digital fingerprints of the message and the verification

digital signature of the message and compares the digital fingerprints to authenticate the

message.

242.   (Currently amended) In a method as set forth in claim 239 wherein

the server maintains the path of transmission of the message in its original

form and additionally provides a digital signature of the path of transmission of the

message between the server and the destination address and transmits the digital signature to the sender with the path of transmission and wherein

the server receives from the sender the path of transmission and the digital signature of the path of transmission and wherein

the server provides digital fingerprints of the path of transmission and the digital signature of the path of the transmission and compares the digital fingerprints to authenticate the message.